## 207.1 - Scanning Electron Microscope (SEM)

These SRMs and RM are for calibrating the magnification scale and evaluating the performance of scanning electron microscopes. SRM 484g can be used to calibrate the magnification scale of an SEM from 1000 to 20,000 X. SRM 2069b consists of graphitized rayon fibers with smooth and uniform edges on a 12.5 mm diameter SEM specimen mount with a 3 mm peg.

SRM 2800 is used in calibrating magnification and consists of a pattern of parallel lines whose nominal distances from the centerline range from  $\pm 1 \mu m$  to  $\pm 5 mm$ . Certified values are given for the center-to-center distance of each line from the centerline; the linewidths are not certified.

RM 8091 is used in checking the sharpness performance of scanning electron microscopes.

Technical Contact: andras.vladar@nist.gov

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	2069b	2800	8091	8820
Description	SEM Performance	Microscope Magnification Standard	Scanning Electron Microscope Sharpness Standard	Scanning Electron Microscope Scale Calibration Artifact
Unit Size	(each)	(each)	(each)	(1 chip)
Spacings	2 to 4 mm	1 µm to 5 mm		